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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,244	03/09/2005	Ludwig Schieferstein	C 2714 PCT/US	2856

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COGNIS CORPORATION
PATENT DEPARTMENT
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EXAMINER	
KHAN, AMINA S	

ART UNIT	PAPER NUMBER
1751	

DATE MAILED: 09/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/527,244	SCHIEFERSTEIN ET AL.	
	Examiner	Art Unit	
	Amina Khan	1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *14-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *14-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to applicant's arguments filed on August 2, 2006.

2. Claims 14-33 are pending. Claims 1-13 are cancelled.

3. Applicant's submission of an English oath is acknowledged. The objection to the oath is withdrawn.

4. Applicant's arguments regarding the 35 U.S.C. 102(b) rejection of claims 14-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Maekawa et al. (EP 1,146,103 A1) are persuasive. The rejection of the claims is withdrawn.

5. The finality of the office action dated June 2, 2006 is withdrawn. New grounds of rejection are recited below.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 14-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maekawa et al. (EP 1,146,103 A1) in view of Bedikian et al. (US 3,536,779).

Maekawa et al. teaches water and oil repellant aqueous dispersions (page 1, abstract) comprising fluoropolymers of formula 1 (page 4, paragraphs 0017-0045), polymerizable monomers of alkyl(meth)acrylates having C_{1-20} alkyl groups (page 4, paragraph 0023), preferably methyl methacrylate (page 5, paragraph 0024), nonionic surfactants such as fatty acid esters of polyethylene glycol (page 8, paragraph 0060), and aqueous solvents such as propylene glycol (page 9, paragraph 0071-0076). Maekawa further teaches that the polymers comprise 20-99% fluoropolymers of formula 1 and 1-50% of the polymerizable monomers of alkyl(meth)acrylates having C_{1-20} alkyl groups (page 5, paragraph 0034). Maekawa further teaches that surfactants comprise 1-10% based on the weight of the polymer (page 9, paragraph 0069), the solvent comprises 2-50% based on the weight of the polymer (page 9, paragraph 0076), and the aqueous medium is 1 to 5 times the mass of the polymer (page 9, paragraph 0076). Maekawa further teaches the treatment of textiles made of natural or synthetic fibers with the aqueous dispersion (page 10, paragraphs 0084-0085).

Maekawa et al. does not teach the instantly claimed copolymers a and the weight ratios of copolymers a to b and overall weight percentages. Maekawa et al. does not teach all the instantly claimed components in a single embodiment.

Bedikian et al., in the analogous art of water repellant aqueous dispersions, teaches treatment compositions comprising a copolymer comprising 1-10% glycidyl methacrylate and 70-99% by weight of at least one lower aliphatic ester of acrylic acid

(column 2, lines 25-30). Bedikian et al. further teaches that the copolymer could be glycidyl methacrylate with acrylic acid esters such as lauryl acrylate and may comprise up to 20% methyl methacrylate (column 3, lines 60-75). This would leave 50-70% by weight of the copolymer available to be lauryl acrylate (10% glycidyl methacrylate, 20% methyl methacrylate, 70% lauryl acrylate). Bedikian et al. further teaches that the compositions can be used to coat all sorts of textile fabrics to render the textiles water repellant and water-borne soil resistant (column 5, lines 30-60).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the compositions taught by Maekawa et al. by incorporating the copolymers taught by Bedikian et al. because Bedikian et al. teaches the improved water repellance of textiles treated with methacrylate/acrylate copolymers. It is prima facie obvious to combine the two compounds, each taught for the same purpose, to yield a third composition for that very purpose. *In re Kerkhoven*, 205 USPQ 1069, *In re Pinten*, 173 USPQ 801, and *In re Susi*, 169 USPQ 423 when ingredients are well known and combined for their known properties, the combination is obvious absent unexpected results. A person of ordinary skill in the water-repellant textile art would expect combinations of these materials to behave in the same fashion as the individual materials, absent unexpected results.

Regarding the claimed weight percentages and ratios of copolymers a and b, it would be obvious to one of ordinary skill in the art at the time the invention was made to optimize the percentages to those instantly claimed for maximum water-repellency results because optimization only requires routine skill in the art.

Regarding the ranges taught by Maekawa et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to select the portion of the prior art's range which is within the range of applicant's claims because it has been held to be obvious to select a value in a known range by optimization for the best results. As to optimization results, a patent will not be granted based upon the optimization of result effective variables when the optimization is obtained through routine experimentation unless there is a showing of unexpected results which properly rebuts the *prima facie* case of obviousness. See *In re Boesch,* 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980). See also *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (Fed. Cir. 1990), and *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). In addition, a *prima facie* case of obviousness exists because the claimed ranges "overlap or lie inside ranges disclosed by the prior art", see *In re Wertheim,* 541 F.2d 257, 191 USPQ 90 (CCPA 1976; *In re Woodruff,* 919 F.2d 1575, 16USPQ2d 1934 (Fed. Cir. 1990). See MPEP 2131.03 and MPEP 2144.05I.

All disclosures of the prior art, including non-preferred embodiment, must be considered. See In re Lamberti and Konort, 192 USPQ 278 (CCPA 1967); In re Snow 176 USPQ 328(CCPA 9173). Nonpreferred embodiments can be indicative of obviousness, see *Merck & Co. v. Biocraft Laboratories Inc.* 10 USPQ 2d 1843 (Fed. Cir. 1989); *In re Lamberti*, 192 USPQ 278 (CCPA 1976); *In re Kohler,* 177 USPQ 399. A reference is not limited to the working examples, see *In re Fracalossi*, 215 USPQ 569 (CCPA 1982).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amina Khan whose telephone number is (571) 272-5573. The examiner can normally be reached on Monday through Friday, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on (571) 272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Amina Khan
Patent Examiner
September 1, 2006

LORNA M. DOUYON
PRIMARY EXAMINER